Figure 1. Configuration Method for a software enabled control
system for luminent devices

System with Luminent Devices 107

CONTROLLER 104

Software Enabled Control System 106

Configuration Memory 105

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103
Host Computer I/O

Host Computer 101

Configuration Database 102

300 —

304   305   306   307

301   303
SET + Error

302
FEEDBACK

310   309   308
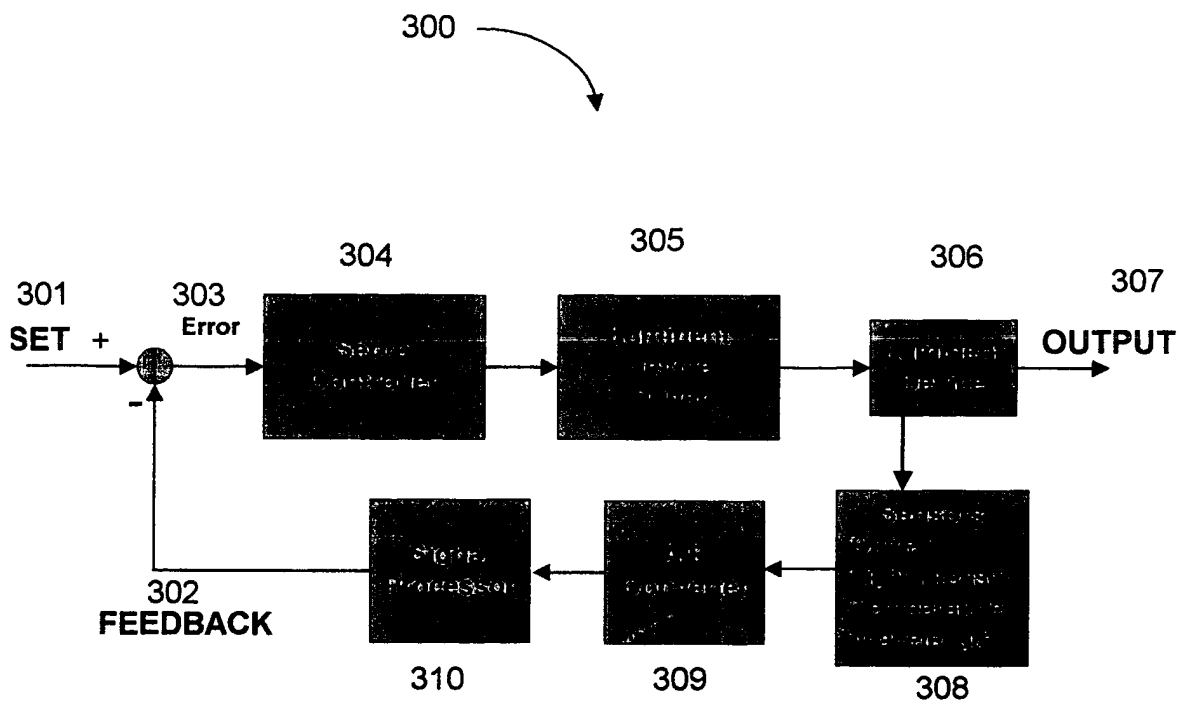
Figure 3. Servo Control for a Luminent Device

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201

System Configuration

Operating System

203 — Luminin System Controls

204 — Host communication interface

205 — Serial I/O driver Y

206 — Parallel I/O drivers

Equipment device controls

Bizer & generator component device Modular characterization
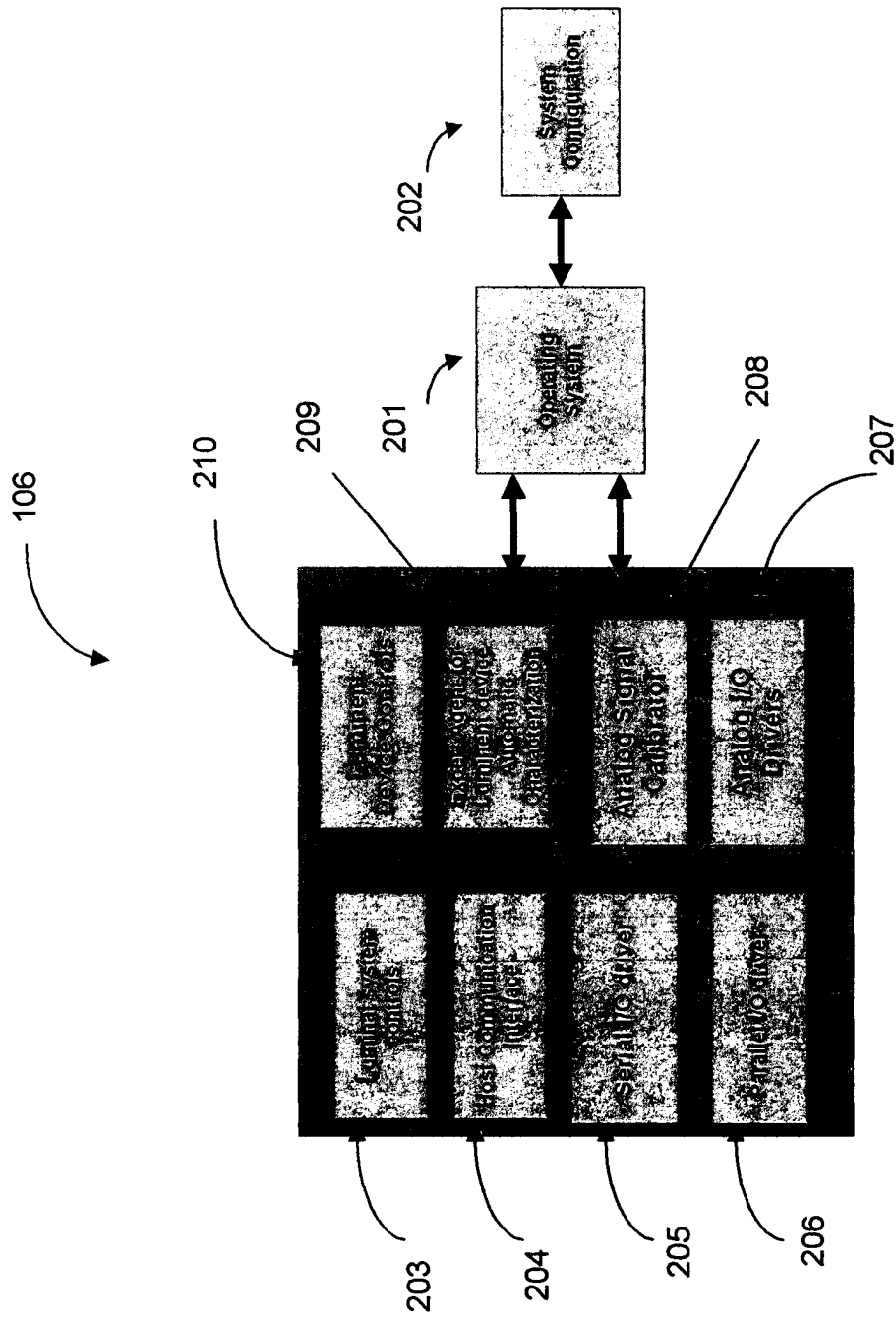
Analog Signal Calibrator

Analog I/O Drivers

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Figure 2. Software Enabled Control System for luminent devices

Configuration database

Configuration Parameter Name	Symbol	Value
Laser Servo Gain	GK	
Servo damping coefficient	ALPHA	
Measured feedback	MF	
Set point for extinction ratio	ER	
Overload detector setting	PLMAX	
Eye Safety Shutdown Setting	Safety	
Threshold detector result	Ibth	
Temperature	Ts	
Flag for selection of Laser Control program	CM	
Scaling factors for drivers	SM, SL, SB	
Analog input 1 sensor offset	Y-int1	
Analog input 1 sensor gain	m1	
Temperature coefficient for slope efficiency model	TCOSL	
Exponential for threshold equation	E1	
Flag to select type of temperature compensation	F1	
TEC control set point	SPTEC	
Wavelength set point	L1	
System resolution	Bits	
Reference voltage	Vref	
Receiver gain setting	RG	

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404
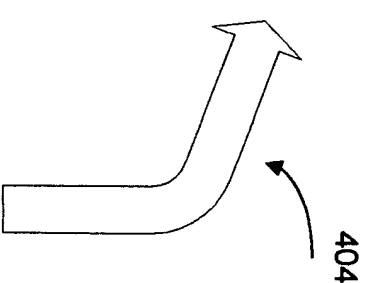
Host Computer data

101

Figure 4. Configuration Database